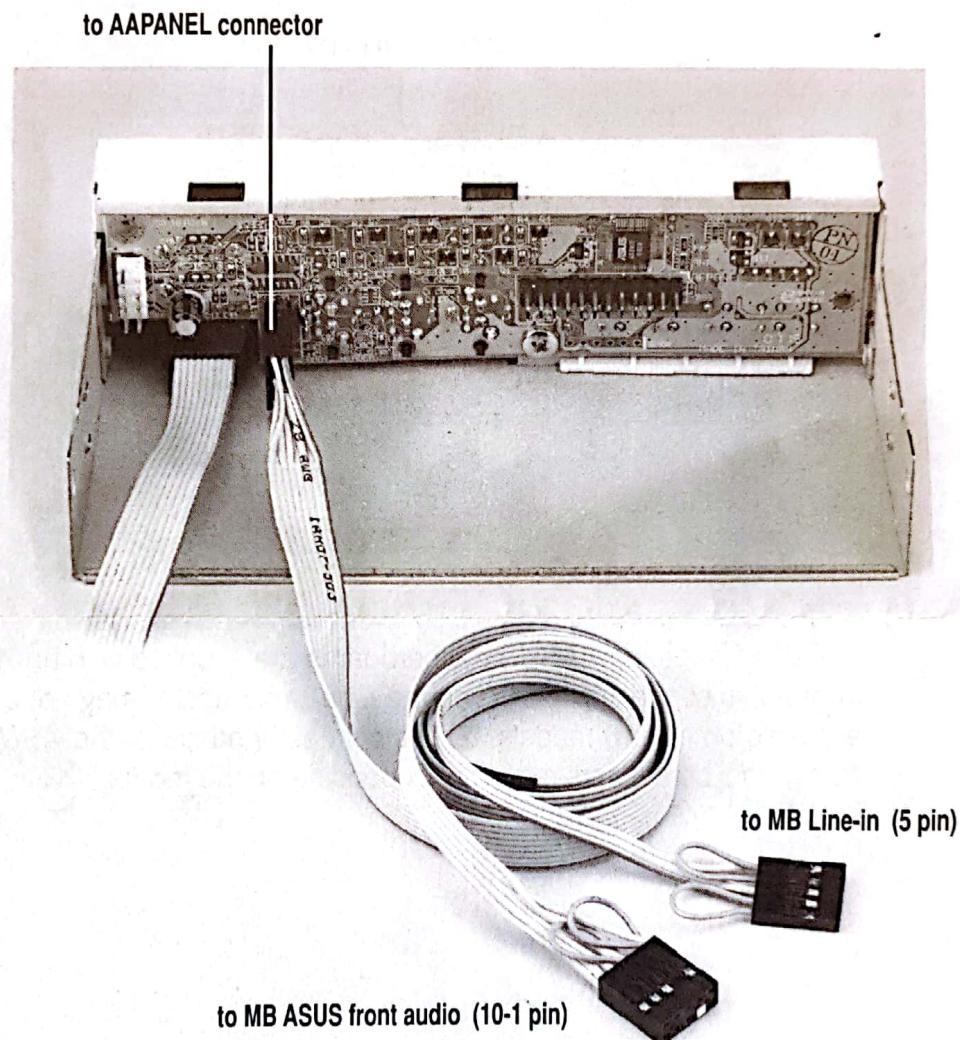


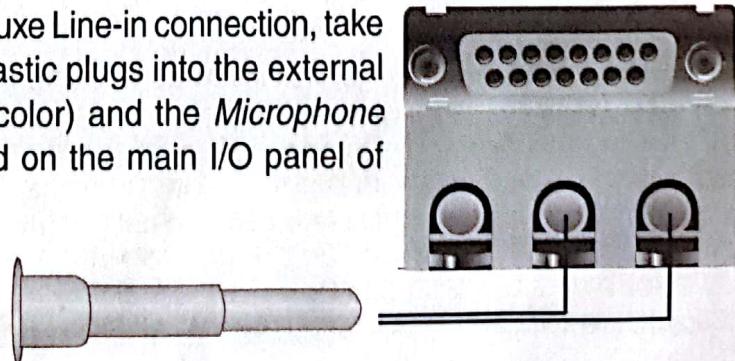
ASUS iPanel Deluxe

Cable Specification Updates

This insert updates the connector specifications for the iPanel Deluxe unit. In addition to the original specifications, the iPanel Deluxe is now provided with a new dual purpose ***Line-in / front audio*** cable to connect to the *line-in* connector and the ASUS *front audio* headers on the motherboard:



When using IPANEL Deluxe Line-in connection, take care to insert the two plastic plugs into the external *Line-in jack* (light blue color) and the *Microphone jack* (pink), both located on the main I/O panel of each motherboard.

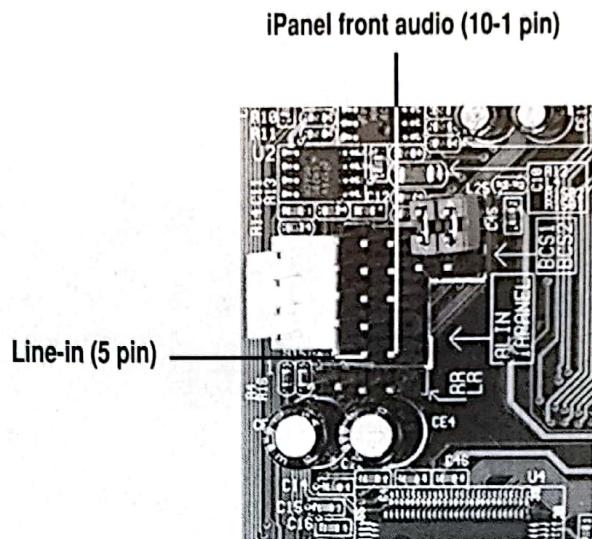


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ASUS® iPanel Deluxe

Making Connections:

The *line-in* connector (LINE_IN or ALIN) and the ASUS *front audio* connector (IPANEL, IAPANEL or AAPANEL) are usually mounted next to each other. Locate the connectors and plug both ends of the *Line-in / front audio* cable to the motherboard.



NOTE! 1. Most new ASUS motherboards are supplied with an ASUS *front audio* connector. However, the *Line-in* connector may not be available on all new models. 2. The connector name for the ASUS *front audio* connectors may vary depending on the model.

For updated processor settings, visit the ASUS web site: www.asus.com.tw

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iPanel™ Family

Smart Information Panel User's Guide

Manual Revision 1.01

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Introduction

The ASUS® iPanel™ Smart Information Panel adds flexibility to your computer by providing fast and easy access to I/O devices such as USB, Serial, Audio, and IrDA. The user-configurable hotkeys for quick access to your favorite computer applications adds to its versatility.

And to keep that high-power computer running at its peak while keeping maintenance cost to a minimum, the iPanel provides PC health monitoring at your fingertips by bringing you instant access to system status information as POST (Power-On Self Test) messages, CPU/system temperature, voltages, and fan rotation speeds – all at the touch of a button.

The iPanel fits snugly into a spare 5.25" drive bay in your computer and its specially developed software enables you to personalize the configurable hotkeys.

Efficient and user-friendly, the iPanel is the ultimate solution to easy connectivity and one touch PC management.

Product Specifications

Two iPanel models are available to suit your PC needs:

- **iPanel Basic** caters to mainstream users who want convenient access to the USB device and to daily computer operations as web browsing and email.
- **iPanel Deluxe** caters to more advanced users by providing additional access to audio and serial ports.

Features

- System Status Detection and Display
 - 1) **Temperature:** Allows efficient monitoring of system (CPU and motherboard) temperature to prevent system overheat and prolong PC performance.
 - 2) **Voltage:** Efficient monitoring of PC voltage (Vcore, +3.3V, +5V) ensures that power supply is within the optimal voltage range.
 - 3) **Startup Diagnostics:** Allows you to detect problems during the POST (Power-On Self Test) routines through the displayed diagnostic codes.

- 4) **System Working Frequency:** Displays the current FSB (or external), CPU Bus, and memory frequencies.
- 5) **System Fan Rotation Display:** Allows efficient monitoring of fan rotation speeds (measured in Rotations Per Minute or RPM) to determine the health status of the system fans for CPU, power supply, and chassis.
- User-configurable Hot Keys
- Front Panel Connectivity
 - 1) 2 USB Ports
 - 2) 1 Serial Port (Deluxe model only)
 - 3) 3 Audio Jacks (Deluxe model only) for Microphone , Line In, and Line Out
 - 4) 1 IrDA Module (Deluxe model only).

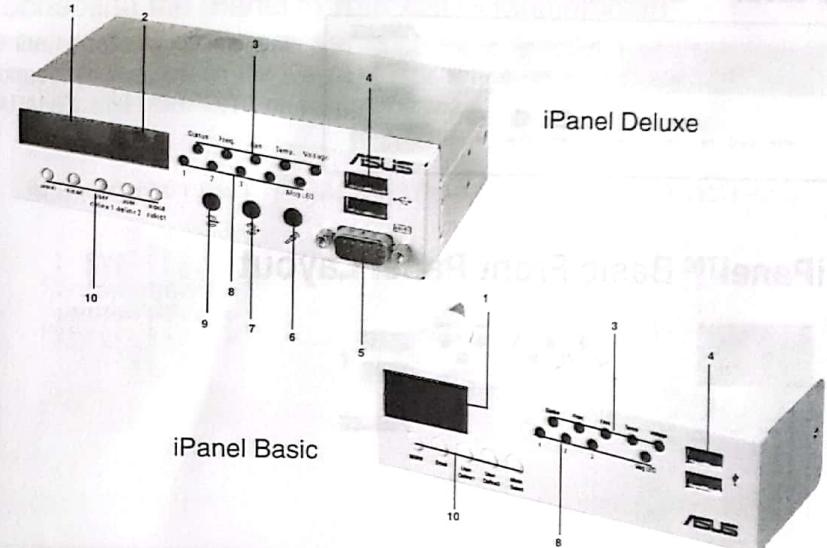
System Requirement

The iPanel may only be used with ASUS motherboards.

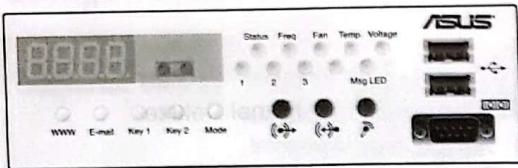
Components

	Location
Diagnostic Display	POST Diagnostic Display Area (see <i>POST Code Descriptions</i> on p. 21) 1
	Infrared Module (Deluxe model only) 2
System Status Display	LED Displays for System Status, Working Frequency, Fan Rotation, Temperature, and Voltage 3
	Secondary LED 8
System I/O	2 USB Port Connectors 4
	1 Serial Port Connector (Deluxe model only) 5
Audio	1 Microphone Connector (Deluxe model only) 6
	1 Line In Connector (Deluxe model only) 7
	1 Line Out Connector (Deluxe model only) 9
Hot Keys	iPanel Hot Keys / Normal Hot Keys 10

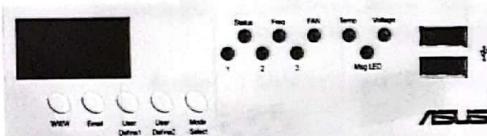
Component Locations



iPanel™ Deluxe Front Panel Layout



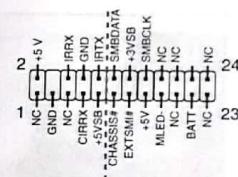
iPanel™ Basic Front Panel Layout



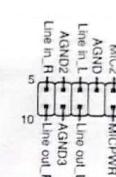
Connecting the iPanel to Your ASUS Motherboard

All the necessary components and cables are contained in your iPanel package. Connect the cables on the iPanel to their corresponding connector (AFPANEL, AAPANEL and USBPORT) on your motherboard.

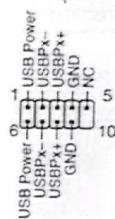
APPANEL (24-1 Pins)



AAPANEL(10-1 Pins)



USBPORT(10-1 Pins)

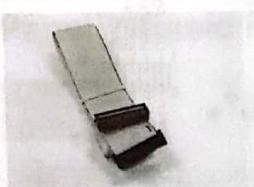


iPanel™ Deluxe Cable Connection

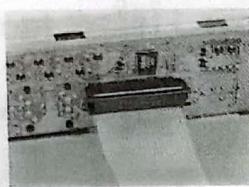
The iPanel package comes with a set of cables which you can readily install in your iPanel unit, and a COM Port bracket for motherboards with no VGA connector:

- AFPanel Cable
- AAPanel Cable*
- COM Port Cable*
- USB Cable
- COM Port Bracket*

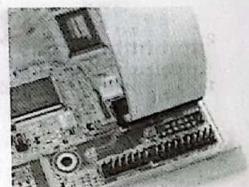
The following table shows the various cables used in the iPanel and where to connect them accordingly.



AFPanel Cable



AFPanel Cable on iPanel



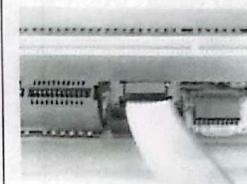
AFPanel on motherboard

The cables connect only in one specific orientation. Match the missing pin/s on the iPanel connector/s to the plugged hole on the respective cable/s.

COM Port cable*
(connected to iPanel unit
upon purchase.)

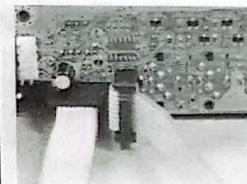


COM Port on iPanel



COM Port on motherboard

AAPanel Cable*

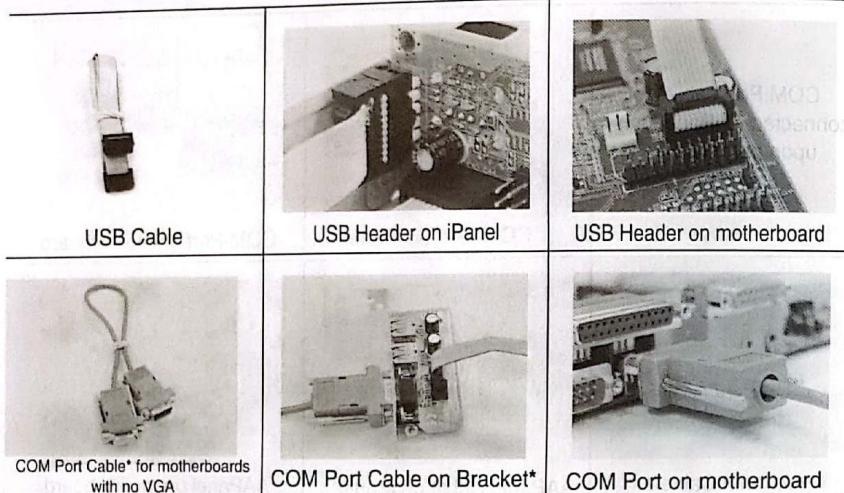


AAPanel Cable on iPanel



AAPanel on motherboard

*Used only for the iPanel Deluxe model.



*Used only for the iPanel Deluxe model.

Software Installation

The iPanel also features the ASUS Hotkey application. The ASUS Hotkey provides easy access to two popular computer functions: web browsing and email; and two user-configurable hot keys allows you to easily launch software applications.

Requirements

- Windows 98/2000/ME or later
- ASUS motherboard with iPanel Support (e.g., ASUS CUSL2, TUSL2, etc.)

Starting Windows

When starting Windows for the first time after installing your motherboard, Windows will detect all Plug-and-Play devices. Follow the Add New Hardware Wizard to install all necessary device drivers.

Installing ASUS Hotkey

Insert the iPanel support disk that came with the iPanel into your drive and double-click or run **A:\SETUP.EXE**. Follow all the online prompts and/or onscreen instructions until you finish the setup process.

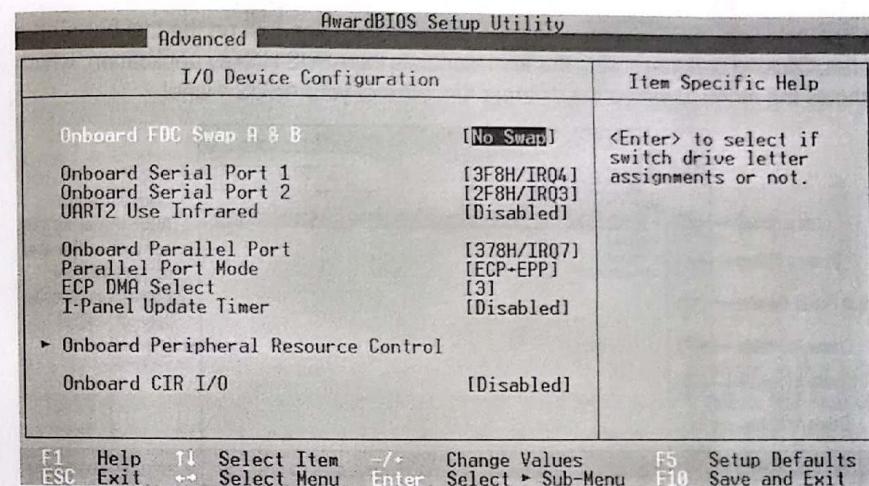
Uninstalling

- Use Windows Add/Remove Programs utility to uninstall ASUS Hotkey. See the *Windows Help* application screen and/or related documentation for more information.

iPanel Update Timer [Disabled] in ASUS motherboard BIOS

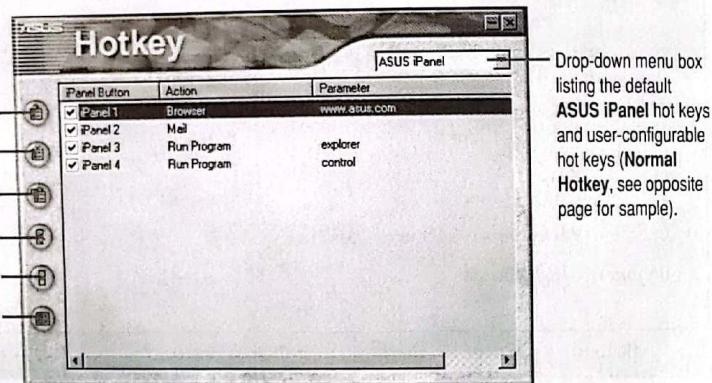
If you have installed the ASUS iPanel and wish to activate the hardware monitoring feature, [Enable] the parameter "I-Panel Update Timer" under the I/O Device Configuration in BIOS. This function allows the iPanel to update the system status indicator every five seconds. Configuration options: [Disabled] [Enabled]

iPanel Update Timer in BIOS



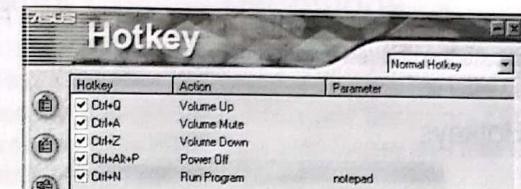
ASUS Hotkey

After installing ASUS Hotkey, you will find the hotkey icon  on the taskbar status area. Clicking or right-clicking this icon launches the ASUS Hotkey application, which shows the menu to set up the different functions of your ASUS iPanel.

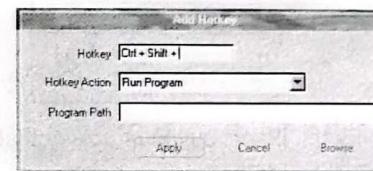


Drop-down menu box listing the default ASUS iPanel hot keys and user-configurable hot keys (Normal Hotkey, see opposite page for sample).

Normal Hotkey



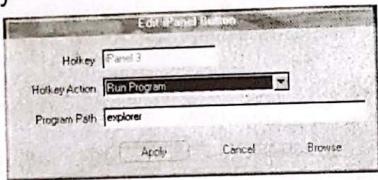
Adding Hotkeys



To add a hotkey, click the **Add a Hotkey** button from the menu to bring up the Add Hotkey dialogue box. Place your cursor on the *Hotkey* box, and press the hotkey combination (use any of the CTRL+, ALT+ or SHIFT+ key combinations), plus any valid key (except ESC, ENTER, TAB, SPACEBAR, PRINTSCREEN, or BACKSPACE) of your choice. Click **Apply** to save the changes.

Select the desired *Hotkey Action*, and if necessary, the *Program Path* (click *Browse* to locate) to indicate the desired location on your drive.

Changing Hotkeys



From the menu, double-click the iPanel button or hotkey that you wish to change. Follow the procedure in adding hotkeys.

System Status Display Definitions

The iPanel defaults to POST diagnostics during startup. Pressing the **Mode** button on the front panel starts the other system status displays. The table on the next page lists and describes the System Status LEDs and Secondary LEDs. The POST Diagnostic Codes appear in the POST Diagnostic Display area (see *Components* on p.6 and *Codes Description* on p.21).

NOTE

The iPanel only displays a particular message if your system has the particular device connected to it (e.g., the power supply fan temperature is shown only if there is a sensor connected to the fan connector on your motherboard).

SYSTEM STATUS LED	SECONDARY LED	DESCRIPTION
1. Startup Diagnostics: Status	—	(see POST Diagnostic Code Descriptions on p.21)
2. System Working Frequency:	1 2 3	CPU Frequency FSB Frequency Memory Frequency
		Freq
3. System Fan Rotation Display:	1 2 3	CPU Fan RPM Power Supply Fan RPM Chassis Fan RPM
		Fan
4. Temperature: Temp	1 2 3	CPU Temperature Power Supply Temperature Chassis Fan Temperature
		Temp
5. Voltage: Voltage	1 2 3	CPU Core Voltage +3.3V +5V
		Voltage

POST Diagnostic Code Descriptions

01	Reserved
02	Reserved
03	Initialize EISA registers (EISA BIOS only)
04	Reserved
05	Keyboard controller self-tested
06	Reserved
07	Verify CMOS Read/Write
09	ASUS-specific initialization; Configure Cyrix CPU register
0A	Issue CPU ID instruction; Initialize the first 32 interrupt vectors, initialize Int. 33 to 120, power management initialization
0B	PnP initialization; verify the RTC time, detect bad battery, read the CMOS data into the BIOS stack area, assign I/O and memory for any PCI devices
0C	Initialization of BIOS data area
0D	Program some of chipset's value; Measure the CPU for display, initialize the video

0E	Initialize APIC (multiprocessor BIOS only); Show startup screen message	7204
0F	DMA channel 0 tested	7205
10	DMA channel 1 tested	7206
11	DMA page registers tested	7207
12	Reserved	7208
13	Reserved	7209
14	Test 8254 0 counter 2	720A
15	Test 8259 interrupt mask bit for channel 1	720B
16	Test 8259 interrupt mask bit for channel 2	720C
17	Reserved	720D
19	Test 8259 functionality	720E
1A	Reserved	720F
1B	Reserved	7210
1C	Reserved	7211
1D	Reserved	7212

1E	If an EISA NVM	7204
1F-29	Reserved	7205
30	Get size of base and extended memory	7206
31	Test base and extended memory, Test base memory from 256K to 640K, test extended memory above 1MB	7207
32	Test all onboard super I/O ports	7208
33	Reserved	7209
3A	Reserved	720A
3B	Reserved	720B
3C	Set flag to allow CMOS setup utility	720C
3D	Install PS/2 mouse	720D
3E	Try to turn on level 2	720E
3F	Reserved	720F
40	Reserved	7210
41	Initialize floppy drive controller	7211
42	Initialize hard drive controller	7212
43	Initialize serial & parallel ports (PnP BIOS only)	7213

45	Initialize math coprocessor	MVII A313 h1	37
46-4D	Reserved	Reserve	93-91
4E	Show all error messages on screen	also this need to be set to 0	05
4F	Ask for password, if needed	wronged bootstrap has send fail	1C
50	Write all CMOS values located in the BIOS stack back to CMOS		
51	Reserved	check Q1 value need to be 10	88
52	Initialize all ISA ROM's; PCI initializations (PCI BIOS only), PnP initialization (PnP BIOS Only), setup shadow RAM, initialize power management	Reserve	88
53	If not PnP BIOS, initialize ports; Initialize time in BIOS data area	Reserve	0C
54-5F	Reserved	Setup 02 level	0C
60	Setup virus protection for the boot sector	level no out of 10	3C
61	Try to turn on level 2 cache	Reserve	38
62	program numlock & typematic speed	Reserve	0A
63	Boot system via Int 19h	Reserve	1A
B0	Unexpected interrupt in protected mode	(who 201B 364) echo failed & I have exception	8A

B1	Unclaimed NMI occurred
BE	Program defaults into chipset
BF	Program remaining chipset values
C0	Init. all standard devices with defaults
C1	Auto detect on-board DRAM & cache
C3	Test first 26K DRAM
C5	Copy ROM BIOS to E000-FFFF
FF	System booting

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